

Helio Henrique Lopes Costa Monte-Alto

Software Engineer

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WORK EXPERIENCE

Software Analyst (Developer), HSBC Global Technology - *Jul/2013 - Jul/2014* - Curitiba, PR - Brazil

- I was a Full Stack Developer, focused on Java, using an Agile methodology in a global team.
- I worked on a project called Client Docs, implementing new functionalities and fixing bugs in a multi-tier architecture software. I have worked both on the back-end and front-end.
- I used Test-Driven Development, getting some experience with unit testing using JUnit.
- Mostly developed using Spring Framework and Hibernate for Java, but also eventually developed in Javascript/JQuery in the front-end, as well as with PL/SQL (Oracle) scripts and batch processes for Data Fix and Data Load in the back-end.
- Used some interesting tools like Rational Application Developer, Rational Team Concert (version control and management of tasks, revision control, build management, and reports), Maven and Sonar.
- Took part on the daily deployment of the application in a Websphere Application Server.

Assistant Professor, Federal University of Paraná - *Aug/2014 - present* - Palotina, PR - Brazil

- I am currently a computer science professor/lecturer. The courses and topics I teach: Object-Oriented Programming (using Java), Object-Oriented Analysis and Design, Software Engineering, Web Development (always experimenting new languages and frameworks), Functional Programming, Databases (SQL and

NoSQL), Algorithms and Data Structures, Multi-Agent Systems and Semantic Technologies.

- I like to teach hands-on classes, using ideas like Coding Dojo and Pair Programming together with my students.

SIDE PROJECTS

DiSEN - Distributed Software Engineering Environment: Java-based environment for process and project management of global software engineering teams. Developed and fixed some modules for it in my research activity at State University of Maringá.

[Twitter-like Server](#): A Twitter-like server in Java.

[Hinar.io \(Android App\)](#): A hymn book app for Android I contributed to.

[CTA Simulator](#): A traffic control simulator with strong object-oriented programming in Python.

[Madrugada Robot](#): An educational robotics application which uses Arduino, Python and the Blockly framework.

[Athena](#): A course disciplines recommender system I contributed to. It uses PHP, Java, Prolog and fuzzy logic.

[Clients Web Example Project](#) (checkout branches): A project for managing clients and orders developed during a Web Development course I taught. It first uses PHP and MySQL (LAMP stack) and then it is refactored as a RESTful API and Web client using MEAN stack (MongoDB, Express, AngularJS and NodeJS).

[Ling-Blocos](#): A prototype of a Scratch-like environment for programming with blocks.

[Tetris](#) and [Tetris Message](#): A flexible Tetris in Javascript and HTML5, with a variant of Tetris for writing messages.

[Rankeables](#): Starter project of a social network, continued by my students.

[Simple To-Do List](#) in Java with Spring MVC for my Web Development course.

[Sudoku Solver](#): A solver in Python using a backtrack algorithm developed in my Programming Workshop course.

EDUCATION AND CERTIFICATES

2021 PhD in Computer Engineering, Federal University of Technology - Paraná
(ongoing)

2014 M.Sc. in Computer Science, State University of Maringá

2012 B.Sc. in Computer Science, State University of Maringá

TECHNICAL SKILLS

- Languages, frameworks and tools: Java, Java EE, JSP, JSF, Spring Framework, Python, PHP, HTML, JavaScript, JQuery, Ajax, AngularJS, RESTful APIs, NodeJS, Scala, Racket/Scheme, Maven, Git, Mercurial, Eclipse, Hibernate, Junit.
- Databases: MySQL, Oracle, MongoDB.
- Good knowledge of agile methodologies (XP, Scrum), object-oriented analysis and design, software architecture, design patterns, functional programming, clean code and best development practices.
- Experience with distributed artificial intelligence and semantic technologies research.

LANGUAGES

English - Advanced/Fluent

French - Beginner/Intermediate

Spanish - Intermediate/Advanced

Portuguese - Native